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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,103	05/14/2004	Anant Achyut Setlur	RD29215	6488
41838	7590	12/05/2005	EXAMINER	
GENERAL ELECTRIC COMPANY (PCPI) C/O FLETCHER YODER P. O. BOX 692289 HOUSTON, TX 77269-2289			KOSLOW, CAROL M	
			ART UNIT	PAPER NUMBER
			1755	

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/644,103	Applicant(s) SETLUR ET AL.	
	Examiner C. Melissa Koslow	Art Unit 1755	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 5, 7-13 and 15-24 is/are allowed.
- 6) ☒ Claim(s) 25, 27, 30 and 34 is/are rejected.
- 7) ☒ Claim(s) 6, 14, 26, 28, 29 and 31-33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

This action is in response to applicants' amendment of 19 October 2005. The objections to the drawings are withdrawn due to the amendment to the specification and the replacement drawing of 19 October 2005. The amendments to the specification have objection to the disclosure and specification and the 35 USC 112 rejections over claims 23 and 24. The amendments to the claims have over objection to the claims and the 35 USC 112 rejections of claims 26, 31, 32 and 34 and the art rejections.

Claims 6 and 14 are objected to because of the following informalities: In these claims, the definitions of a and b should be " $0.001 < a \leq 0.5$ " and " $0.001 < b \leq 0.3$ ". Appropriate correction is required.

Claim 33 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 29. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

These claims are identical. It is noted that it appears claim 33 should depend on claim 31. If the change in dependency is made, then the objection will be withdrawn and this claim will be objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 25, 27, 30 and 34 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

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The originally filed disclosure teaches that D is at least a Group IIIB metal selected from the groups consisting of Ga, In and combinations thereof. This teaching does not support the newly added claim limitation that D is at least a Group IIIB metal comprising Ga, In and combinations thereof. The term "comprising" is broader in scope than the originally disclosed Markush terminology. There is no teaching in the original disclosure that the phosphor is dispersed in a transparent casting, which is adjacent to the light source of claim 25 or that the light source of claim 25 further contains scattering particles dispersed in the transparent casting. Paragraph [0057] teaches that when the light source is an UV/blue light LED, then the phosphor is dispersed in a transparent casting, which is adjacent to the LED and that the transparent casting can further contain scattering particles. There is no teaching of any other light sources having the structure and composition of claims 27 and 30. To overcome this rejection it is suggested that the dependency of claim 27 be changed to claim 26.

Paragraph [0059] teaches the phosphor of claim 1 can be used in cathode-ray tubes and there is no teaching of the use of a cathode ray tube as a radiation source that emits wavelengths in the range of about 250-480 nm. Claim 34 teaches a cathode ray tube as a radiation source that emits wavelengths in the range of about 250-480 nm. This discrepancy between the teaching of claim 34 and paragraph [0059] needs to be corrected.

Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This claim recites the limitation "the transparent casting". There is insufficient antecedent basis for this limitation in this claim, claim 27, from which claim 30 depends or claim

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25 from which claim 30 ultimately depend. It appears this claim should depend from claim 27, which is the first teaching in the claims of a transparent casting.

Claims 1-3, 5, 7-13 and 15-24 are allowable over the cited art of record.

Claims 6 and 14 would be allowable if rewritten or amended to overcome the objection set forth in this Office action.

Claims 26, 28, 29, 31 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 25, 27 and 30 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. 112 set forth in this Office action.

There is no teaching or suggestion in the cited art of record of a phosphor having the formula  $(A_{1-x}Eu_x)(Mg_{1-y}Mn_y)D_{10}O_{17}$ , where A is at least one of Ba, Sr and Ca, D is Ga and/or In,  $0.001 < x \leq 0.5$  and  $0.001 < y \leq 0.3$ .

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk  
November 30, 2005

  
C. Melissa Koslow  
Primary Examiner  
Tech. Center 1700